

IN THE CLAIMS:

Please amend claims 1, 3, 4, 9, 11-15, 21 and 22 and cancel claim 2 without prejudice as follows:

1. (Currently Amended) An apparatus for synchronizing uplink and downlink transmissions in a terminal of a mobile communication system, the apparatus comprising:

a receiving unit receiving and converting an RF signal;

a processing unit recognizing a construction of uplink time slots and downlink time slots from the converted RF signal;

a detecting unit detecting a current switching point from the converted RF signal and determining a new switching point based on the detected current switching point and the recognized construction of uplink time slots and downlink time slots;

a transmitting unit transmitting a data signal; and

a switching unit switching between the receiving unit and the transmitting unit according to the new switching point,

wherein the transmitting unit transmits the data signal with a variable delay based on the new switching point.

2. (Canceled)

3. (Currently Amended) The apparatus of claim 21, wherein the processing unit controls the transmitting unit to delay the transmitted data signal such that a transmission point of the data signal corresponds to a switching point for uplink transmission.

4. (Currently Amended) The apparatus of claim 21, wherein the transmitting unit selects a data signal to be delayed and adjusts a delay time of the signal.

5. (Original) The apparatus of claim 1, wherein the switching unit performs switching at a variable time interval according to the switching point.

6. (Original) The apparatus of claim 1, wherein the detecting unit controls the switching unit to switch between the receiving unit and the transmitting unit.

7. (Previously presented) The apparatus of claim 1, wherein the detecting unit determines the new switching point based on an actual signal processing time of the transmitting unit.

8. (Original) The apparatus of claim 1, wherein the detecting unit is hardware-based.

9. (Currently amended) The apparatus of claim 1, wherein the detecting unit is a software-based.

10. (Original) The apparatus of claim 1, wherein the mobile communication system is TDD-based.

11. (Currently amended) An apparatus for synchronizing uplink and downlink transmissions in a terminal of a mobile communication system, the apparatus comprising:

a receiver ~~adapted to convert~~converting a received RF downlink signal to a digital signal;

a modem ~~adapted to examine~~examining the digital signal to recognize a construction of uplink time slots and downlink time slots and ~~to generate~~generating time slot construction information;

a time slot detector ~~adapted to examine~~examining the digital signal to detect a first switching point between uplink time slots and downlink time slots and to determine

a second switching point based on the detected first switching point and time slot construction information;

an RF transmitter ~~adapted to transmit~~transmitting an uplink data signal; and

a TDD switch ~~adapted to switch~~switching between the receiver and transmitter according to the second switching point,

wherein the transmitter transmits the data signal with a variable delay based on the new switching point.

12. (Currently amended) The apparatus of claim 11, wherein the transmitter further comprises a variable delay unit ~~adapted to delay~~delaying the transmitted data signal such that a transmission point of the data signal corresponds to a switching point for uplink transmission.

13. (Currently amended) The apparatus of claim 12, wherein the modem ~~is adapted to control~~s the variable delay unit to delay the transmitted data signal.

14. (Currently amended) The apparatus of claim 12, wherein the variable delay unit ~~is adapted to select~~s a data signal to be delayed and ~~to adjust~~s a delay time of the selected signal.

15. (Currently amended) The apparatus of claim 11, wherein the TDD switch ~~is adapted to switch~~es at a variable time interval according to the second switching point.

16. (Original) The apparatus of claim 11, wherein the time slot detector controls the TDD switch to switch between the receiving unit and the transmitting unit.

17. (Original) The apparatus of claim 11, wherein the time slot detector determines the second switching point based on an actual signal processing time of the transmitter.

18. (Original) The apparatus of claim 11, wherein the modem is a hardware modem.

19. (Original) The apparatus of claim 11, wherein the modem is a software modem.

20. (Original) The apparatus of claim 11, wherein the mobile communication system is TDD-based.

21. (Currently amended) A method for synchronizing uplink and downlink transmissions in a terminal of a mobile communication system, the method comprising the steps of:

examining a received signal to recognize a construction of uplink time slots and downlink time slots and generating time slot construction information;

examining the received signal to detect a first switching point between downlink time slots and uplink time slots;

determining a second switching point based on the detected first switching point and time slot construction information; ~~and~~

switching between a receiver and a transmitter according to the second switching point; and

transmitting a data signal with a variable delay based on the second switching point.

22. (Currently amended) The method of claim 21 further comprising the step of:

delaying ~~a-the~~ transmitted data signal such that a transmission point of the data signal corresponds to a switching point for uplink transmission.

23. (Original) The method of claim 22, wherein the step of delaying the transmitted data signal further comprises selecting a data signal to be delayed and adjusting a delay time of the signal.

24. (Original) The method of claim 21, wherein the step of examining a received signal to recognize a construction of uplink time slots and downlink time slots is performed by a software modem.

25. (Original) The method of claim 21, wherein the step of switching between a receiver and transmitter further comprises switching at a variable time interval according to the second switching point.

26. (Original) The method of claim 21, wherein the step of determining a second switching point further comprises considering an actual signal processing time of the transmitter.

27. (Original) The method of claim 21, wherein the step of examining a received signal to recognize a construction of uplink time slots and downlink time slots comprises counting the number of uplink and downlink time slots in the overall time slots of an uplink/downlink channel.